Corner: UNEP/ SETAC Life Cycle Initiative

Crosscutting issues to be explored by the UNEP/SETAC Life Cycle Initiative in 2004

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Summary of the Working Groups meeting in Lausanne/ Switzerland on 2 December 2003. Participants of the Working Groups meeting discussed the following crosscutting activities that embrace life cycle based topics which concern more than one programme and that have been identified as relevant in the overall user needs assessment:
1) Simplified LCA,
2) Integrated resource and waste management,
3) Integration of social aspects into LCA and Function-Based Approach

Simplified LCA. An overview study should be performed on:
- Existing possibilities for simplification of general LCA methods (present examples include the Simplified Base Model of OMNIITOX in the LCIA and the use of IOA-LCA for background processes in LCI).
- Existing possibilities for simplification of LCA for specific applications (like DfE) or product sectors.
- Existing possibilities for simplification of the interface between LCA and practice.
- Existing LCA based simple tools for the process level might be a way forward to reach out to SMEs.

This means that at present the Life Cycle Initiative does not aim at a new Task Force. The study should identify whether a new Task Force is desirable.

Integrated Resource and Waste Management. There is a need to make an analysis of the use of the Integrated Waste Management strategy in comparison to the use of the Waste Management Hierarchy. Points of attention should be: the scope or character of the strategy (what type of waste, what type of resources), the scientific basis (particularly the use of LCA and possibly other tools like Material Flow Analysis or Environmental Risk Assessment), possible barriers for achieving the most preferred solution (costs, available infrastructure, social perceptions), actual results, compared to the use of the Waste Management Hierarchy in a comparable situation.
This topic is in principle well suitable for a new Task Force; further exploration is necessary on the viability of such a Task Force. Other topics related to the life cycle of resources could be addressed as well.

Social aspects in LCA/ Function based approach. The outcome of the discussion was the following:
- The aim should be to have three LCA tools next to each other: for environmental, economic and social impacts with the same system boundaries structure, etc.; these should not be integrated into one LCA tool; a new Task Force may then focus on the social aspects.
- At the moment the Life Cycle Initiative will not aim at including broader systems level, for instance rebound effects. However, the task force should build bridges towards the broader systems level and the so-called Function Based Approach.

Integrated approach to environmental product information recommended

An integrated approach is a promising step forward to include life cycle information into consumer information tools on products and services. This was said at the International Conference on Environmental Product Information, held in Stockholm, 29–30 September 2003. Environmental Product Declarations (EPD) was highlighted as well as a good information tool, especially for business-to-business communication.

UNEP proposed an international project to establish an International Forum on Sustainable Product Information Schemes, which could be linked to the UNEP/SETAC Life Cycle Initiative. The aim of this forum is to build a knowledge pool and to disseminate results linked to the communication of life cycle information on:

- Labels and Claims
- Product declarations and Certification systems
- Linkages to EMS and Corporate reporting
- Social labels

The project proposal will be further developed by a task force of the Life Cycle Initiative called 'Communication of life cycle information'. The conference was organised by the Nordic Council of Governments in co-operation with UNEP and other partners. The conference report is available at http://www.sinf-mk.se/stockholm.

UNEP/ SETAC Partners

UNEP/ SETAC partners in the Life Cycle Initiative are AIST (National Institute of Advanced Industrial Science and Technology), Japan, Alliance for Beverage Cartons and the Environment (ACE), Association of Plastics Manufacturers in Europe (APME), International Council on Mining and Metals (ICMM), General Motors, Governments of Canada, Germany, the Netherlands and Switzerland, and the CIRAIG/ Government of Quebec.

Getting the life cycle data right

The broad application range of LCI-data on company and governmental level and the rising availability of public available databases raise questions which are not answered in available documents on 'how to get the life cycle data right'.

Whilst criteria and indicators seem clearly developed on the data set level diverging measures are applied for LCI-results and databases. Common sense exists that additional efforts are necessary to harmonise data exchange and transfer, as not only content, but also format has to be specified. A high level of detail should be aimed at between LCA experts. Decision-makers need aggregated indicators to assess the reliability.

These were some of the results of the International Workshop on 'Quality of Life Cycle Inventory Data' under the auspices of the 'UNEP/SETAC-Life Cycle Initiative', which was held at the Forschungszentrum Karlsruhe, Germany, from 20–21 October 2003. The workshop had 83 participants from 5 regions and 15 countries who recommended to prepare a comprehensive final report that will be the basis of future work on that topic within the Task Force of the LCI Working Group on LCI Database Characteristics and Quality. All presentations are online available at http://www.lci-network.de/lci-quality.

Life Cycle Toxicity Impact Assessment expert meeting concludes on a common framework

In the field of Life Cycle Toxicity Impact Assessment, a common matrix framework has been proposed. This framework can then be the start for a tiered modelling approach that enable the development of components for a detailed model and a more simplified base model with a wider coverage of substances.

These are the main conclusions of the review expert meeting on Life Cycle Toxicity Impact Assessment, which took place on 1–2 December at EPFL in Lausanne/ Switzerland.